TRINOVA BIOCHEM
European Distributor of MOLTOX

Prepared Mixtures for Bacterial Mutagenesis

S9 Liver Extract and Metabolic Activation

- S. typhimurium and E. coli, used in Ames test, are prokaryotes and therefore do not exactly reflect the conditions in humans. In mammalian organisms chemical molecules are often metabolized in the liver. This can lead to the generation of mutagenic metabolites.
- S9 is a liver extract (e.g. rat, hamster) that contains active liver enzymes (P450 activity) simulating the hepatic metabolism in in vitro assays.
- The P450 activity in S9 can be increased through induction with pure chemicals like Aroclor 1254 or Phenobarbital. Metabolic activation systems based on chemically induced S9 have been widely applied in in vitro studies; e.g. the Salmonella mutagenicity test and the micronucleus test.
- S9 is the supernatant of homogenized liver that has been centrifuged at 9000 g for 10 min. For gaining the liver mircrosomes the homogenized liver is centrifuged at 100000 g for 1 h.
- Our S9 products are standardized for use in the Ames test. For other genotoxic tests, different S9 batches can be tested for less toxic effects on cells.

Lyophilized S9 Liver Extract

Lyophilized S9 is easy to handle and especially useful when an ultralow freezer is not available. It is ready to use after reconstitution with the label volume of cold, sterile, purified water.

Catalog No	Description	Storage	Size
11-05L.1 / .2 / .5	S9 SD Rat liver PB/BNF in KCl	-20°C	1.1 / 2.1 / 5 ml per vial

Frozen S9 Liver Extract

Catalog No	Description	Storage	Size
11-102.2 / .5	S9 SD Rat liver uninduced in KCl	-80°C	2 / 5 ml per vial
11-105.1 / .2 / .5	S9 SD Rat liver PB/BNF in KCl	-80°C	1 / 2 / 5 ml per vial
11-115.5	S9 SD Rat liver Ethanol in KCl	-80°C	5 ml per vial
15-03S.5^	S9 Golden Syrian Hamster liver Aroclor^ in KCl for modified Ames	-80°C	5 ml per vial
15-104.5	S9 Golden Syrian Hamster liver uninduced in KCl	-80°C	5 ml per vial
15-205.5	S9 Golden Syrian Hamster liver PB/BNF in KCl	-80°C	5 ml per vial

^*Because of impending Aroclor shortage, supply of Aroclor induced S9 products depends on availability!*

Note:
Please contact us directly if you have questions about any products not listed here or would like us to custom manufacture an item to your specifications. ▸ Please ask for availability of S9 Mouse! ▸ **Ready-to-use S9 Mix MUTAZYME™** is available as well.

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S9 Requires a NADPH Regenerating System

Refer to appropriate test method for information on the appropriate system.

MOLTOX® offers a prepared NADPH Regenerating System conveniently preformulated, filter sterilized (Regensys™ A, Regensys™ B).

Mixing of Regensys A, Regensys B, and S9 results in a cytochrome-based P450 metabolic oxidation system that may be appropriate for your assay.

Catalog No	Description	Storage	Size
60-200.15	NADPH Regensys™ A	2-8°C	15 ml
60-200.40	NADPH Regensys™ A	2-8°C	40 ml
60-200.50	NADPH Regensys™ A	2-8°C	50 ml
60-201.15L	NADPH Regensys™ B, lyophilized	-20°C	46 mg
60-201.4L	NADPH Regensys™ B, lyophilized	-20°C	123 mg
60-201.5L	NADPH Regensys™ B, lyophilized	-20°C	153 mg

We also offer **ready-to-use S9 Mix MUTAZYME™** - containing a NADPH Regenerating System and all necessary Co-factors. Available as 5%, 10% and 30% S9 Mix.

For information send an E-Mail to info@trinova.de
or visit us at www.trinova.de

About Us

TRINOVA BIOCHEM GmbH is the European distributor of MOLTOX®, the leading manufacturer of products used in the Salmonella and E. coli WP2 mutagenicity tests / Ames tests: Minimal glucose agar plates, top agars, Salmonella and E. coli tester strains, frozen and lyophilized S9, MUTAZYME™, NADPH-regenerating systems and positive control chemicals.

MOLTOX®
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